



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/536,345	09/29/95	TEMPLE	07/24/95(1)

21M1/0121

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EXAMINER
MALLEY, J.

ART UNIT 2101	PAPER NUMBER
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DATE MAILED: 01/21/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/536,345

Applicant(s)
Temple et al.

Examiner
Daniel P. Malley

Group Art Unit
2101



☒ Responsive to communication(s) filed on Oct 27, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 34-45, 59-64, 67-69, 72, and 73 is/are pending in the application.

Of the above, claim(s) 20-33, 46-58, 65, 66, 70, 71, and 74 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 34-45, 59-64, 67-69, 72, and 73 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Election/Restriction

1. Claims 20-33, 46-58, 65-66, 70-71, and 74 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed in Paper No. 7.

Claim Rejections - 35 USC § 112

2. Claims 34-45 and 59-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The independent claims 34 and 59 are confusing and not understood. The phrase “poled normal thereto” could refer to a number of directions; it is not clear which direction is being referred to. The term “channel facing surfaces” is unclear. The term “the channel spacing” lacks antecedent basis in the claims. The phrase “disposed parallel with and..closure sheet to the channels” is unclear and not understood. In general, the independent claims seem unorganized and written in a hodge-podge manner, making them difficult to understand.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 34-45, 59-64, 67-69 and 72-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Temple('028) in view of Bartky et al.(Bartky).

Temple teaches a high density multi-channel array, electrically pulsed droplet deposition apparatus comprising: a plurality of modules each module including a layer of piezo-material poled normal thereto, a channel for ink droplets, separating walls, and electrodes; a channel closure sheet; a nozzle plate; and means for supplying liquid to the channels.

Bartky teaches a multi-channel array comprising: a plurality of modules including a channel and separating wall, wherein separating wall surface has an electrode which causes wall to eject droplet upon shearing; channel cover sheet having electrodes opposite the channel; drive circuits connected to electrodes; and manifold.

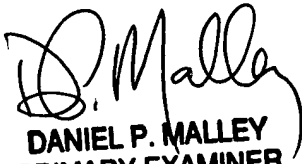
It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Bartky into those of Temple, for the motivation, as suggested by Bartky, of providing an ink jet actuator having improved efficiency.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D.P. Malley whose telephone number is (703) 305-3475.


DANIEL P. MALLEY
PRIMARY EXAMINER

DPM

January 15, 1998